

Form, Space & Order

Sketchbook

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DSGN-223
Fall 2020
Prof. McManus

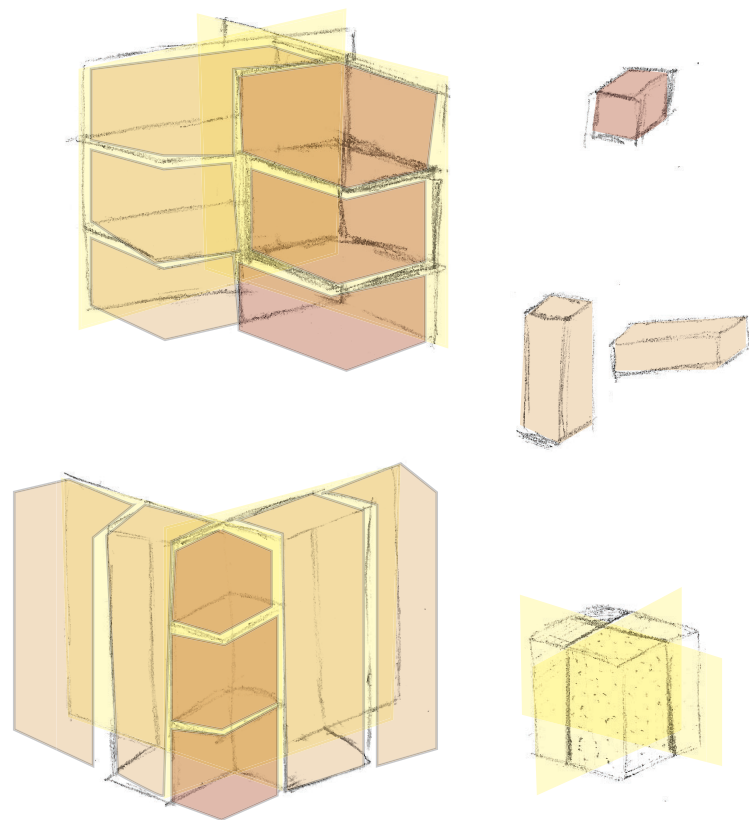
JL

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Implied Volume



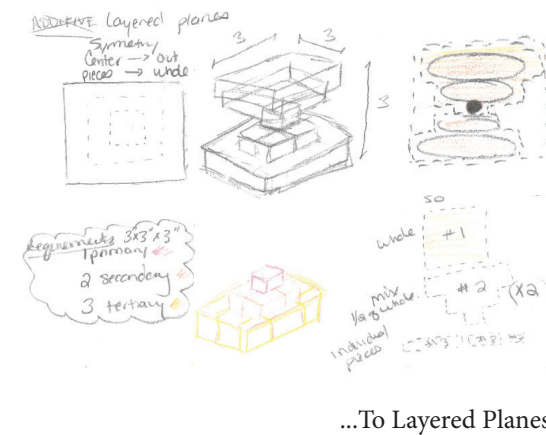
Primary:
Large 3 x 3 x 3 volumes which comprises of four implied volumes.

Secondary:
Vertical and horizontal medium sized implied volumes.

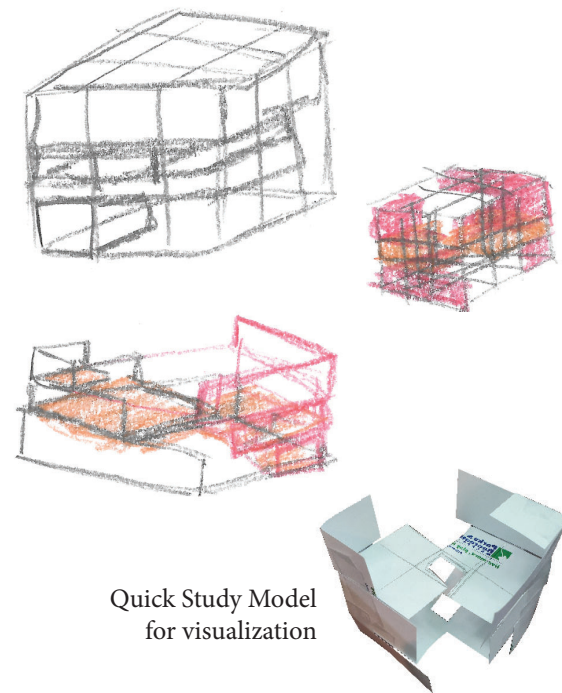
Tertiary:
Small 1 x 1 x 1 implied volumes.

Layered Planes

From Additive...



...To Layered Planes.

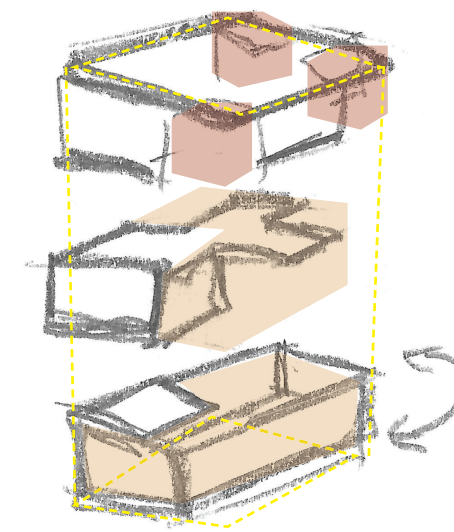


This cube evolved from my original additive form. It is the stacking of planes vertical and horizontal (Secondary and Tertiary) in two halves of the whole form (Primary). When placed in mirror images the layering effect adds more visual interest.



Unit 1: 6 Cubes

Subtractive Form



Flip upside down so that second secondary void is on bottom of cube.

Beginning Form 3 x 3 x 3 Primary

Adjoining Subtractions (2) Secondary

Subtraction from Subtractions (3) Tertiary

-Subtract with Subtract
-Subtractive Void

Process: What was I thinking?

Where my brain took me that influenced the process of this project.

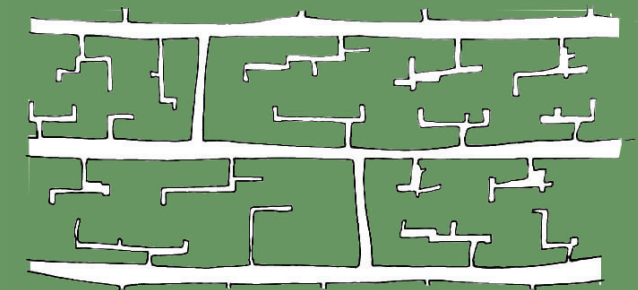
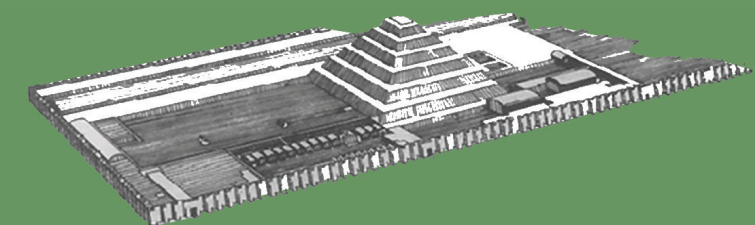


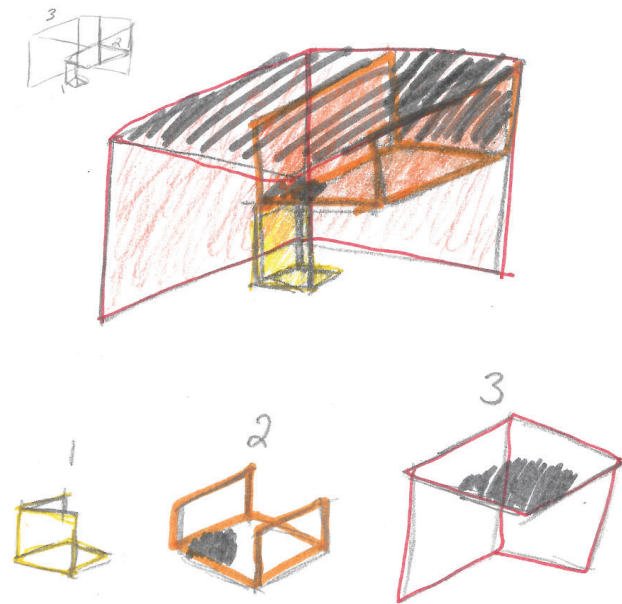
Figure 1.19 – The rectilinear planned main routes 'supergrid', with *laissez-faire* infilling of the grid blocks – as el-'Amarna (Figure 1.33) and Mohenjo-daro (Figure 1.41).

Urban Layout, the Super-block where individuals develop as they like. Like continually digging into the overall form.



Djoser's Step Pyramid at Saqqara is an example of layered volume.

Overlapping Volume



Where volumes overlap and create plane of next form.

Primary:

Sizes of Volumes, large, medium, small.

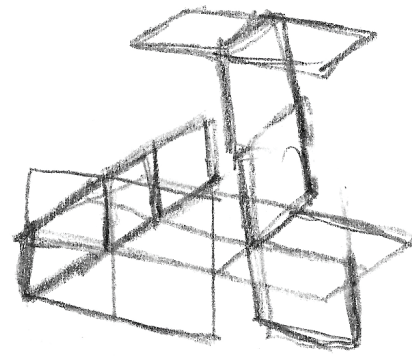
Secondary:

There are three sides of each volume constructed, 1/2 needed for a complete cube. When all cubes are placed together a more complete volume is formed.

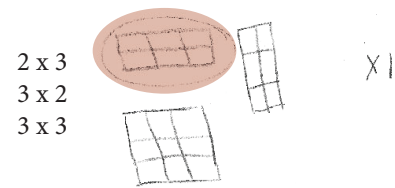
Tertiary:

The fourth side of every volume is formed by the adjacent volume overlap.

Intersecting Plane

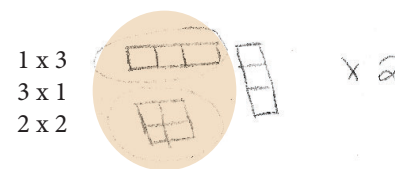


Small, Medium, and Large planes intersect to form implied cube.



Large

Primary: One plane from the large category comprise the overall form.



Medium

Secondary: Two different planes from the medium category comprise the overall form.



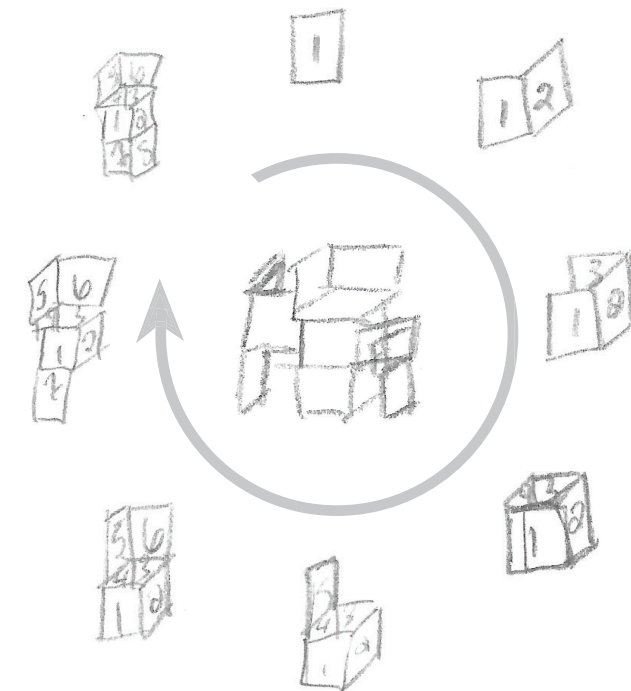
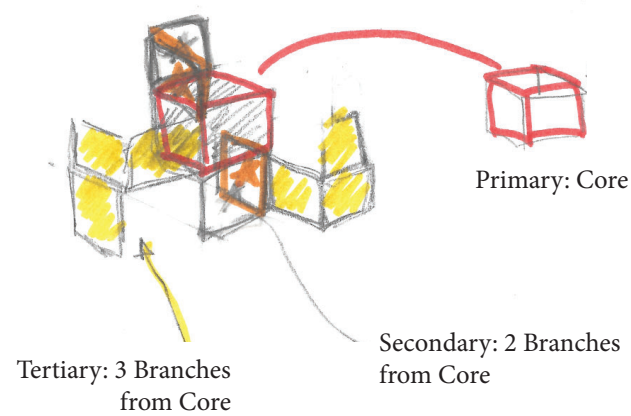
Small

Tertiary: Three different planes from the small category comprise the overall form.



Unit 1: 6 Cubes

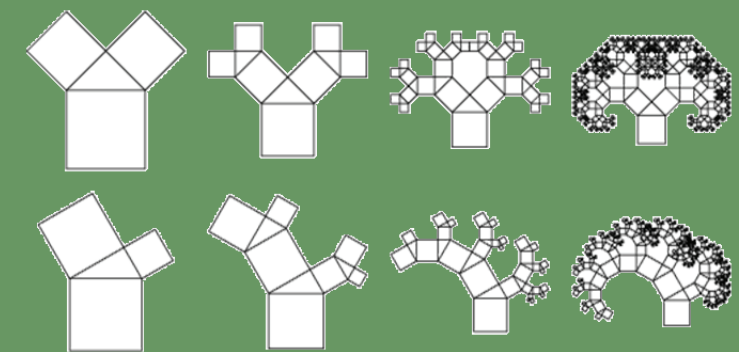
Additive Form



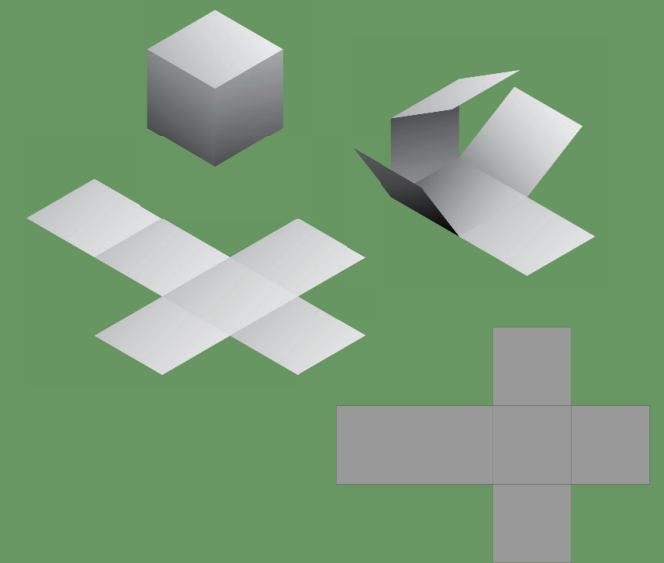
-Emerging out from the center cube.
-Unfolding

Process: What was I thinking?

Where my brain took me that influenced the process of this project.

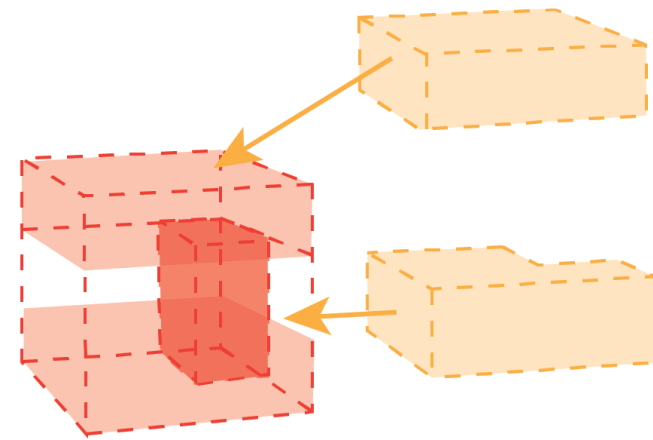
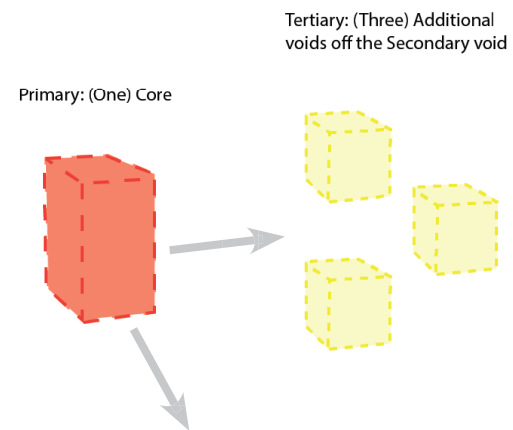


The Pythagoras Tree Fractal has a repeated shape that continuously shrinks as the form repeats.

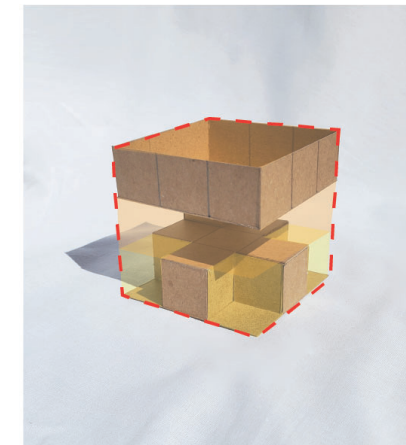
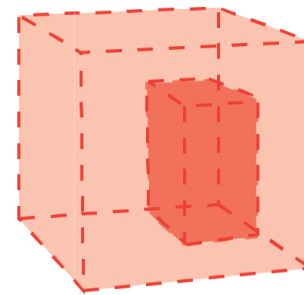
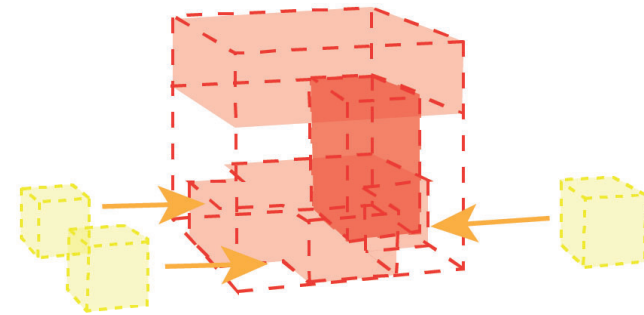
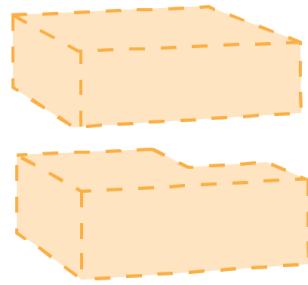


The idea of a continuous folding form that emerges from a plane, like that of constructing a cube from paper.

Unit 2: Diagramming



Secondary: (Two) Voids immediately off the Core



Subtractive Form
Intersecting Planes

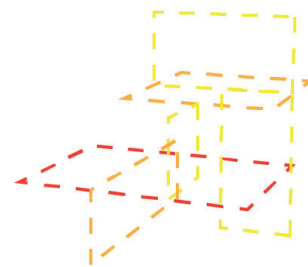
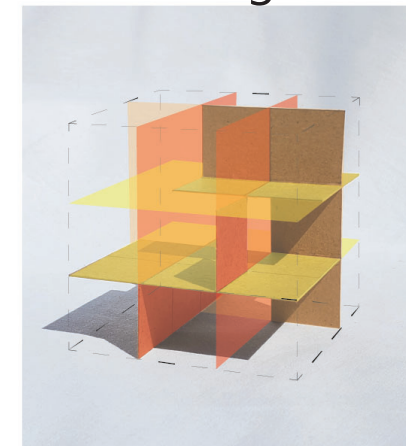
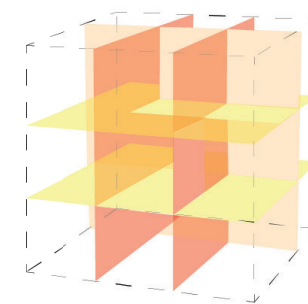
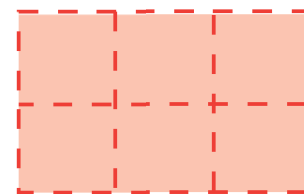
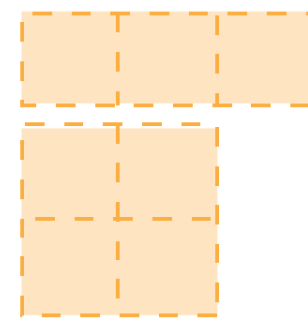
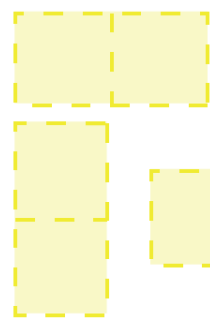
Tertiary: Small (Three)
1 x 1 and 2 x 2 H and 2 x 2 V



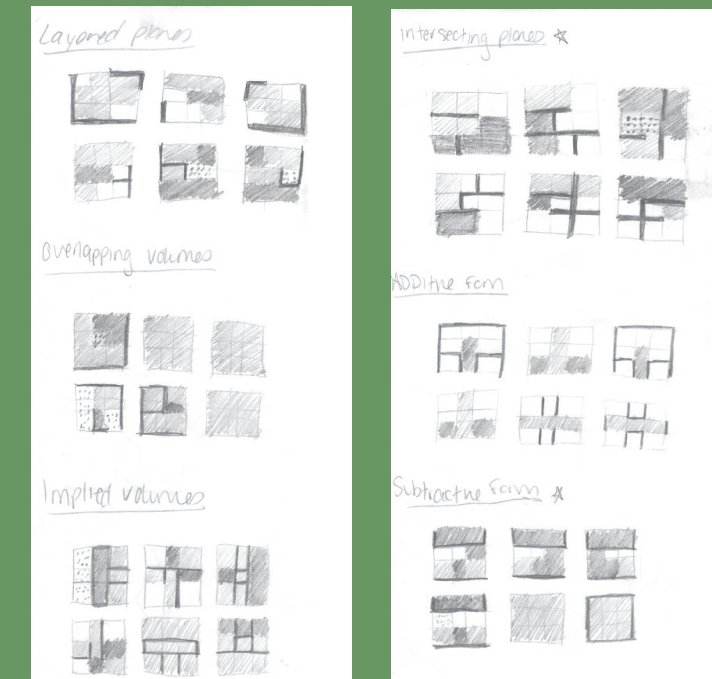
Secondary: Medium (Two)
1 x 3 and 2 x 2



Primary: Large (One)
2 x 3 Plane



Process: What was I thinking?
Where my brain took me that influenced the process of this project.



Before jumping into Illustrator for Exercise #2.1, I looked at all of the possible plans that could be created from the physical cubes made in Exercise #1.

By sketching out all of the options I was then able to pick the top 2 and play with different color blocking and line work in Illustrator.

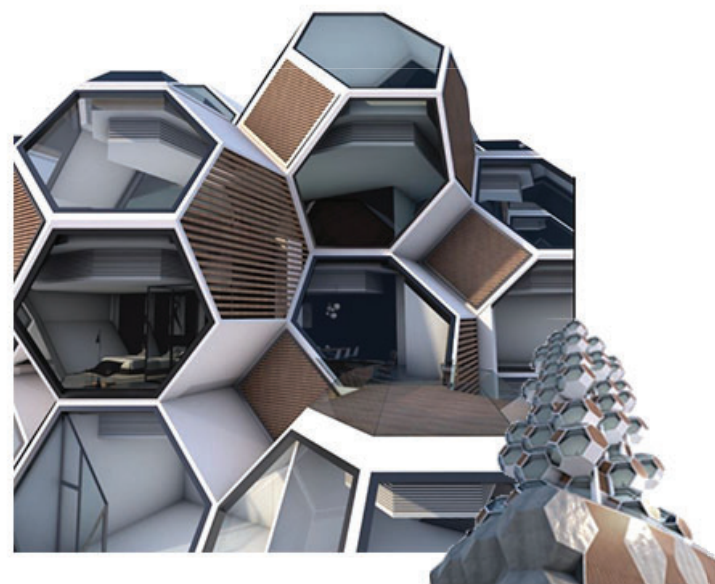
I had used Illustrator many years ago at my last school, but I was glad to get a chance to jump back in and get myself acclimated with the software.

Cybertecture James Law



Unit 3: Drama in Architecture

The Guests and Gusto Presentation today with Cybertecture founder and architect James Law was inspiring. He is pushing architectural design into the future to create unique ways of adapting traditional typologies such as urban housing. Some of his work also reminded me of the graphic direction I have been trying to push for with my Exercises, the hexagon. Below are a few projects with these similar characteristics.



Matrix Tower , New York

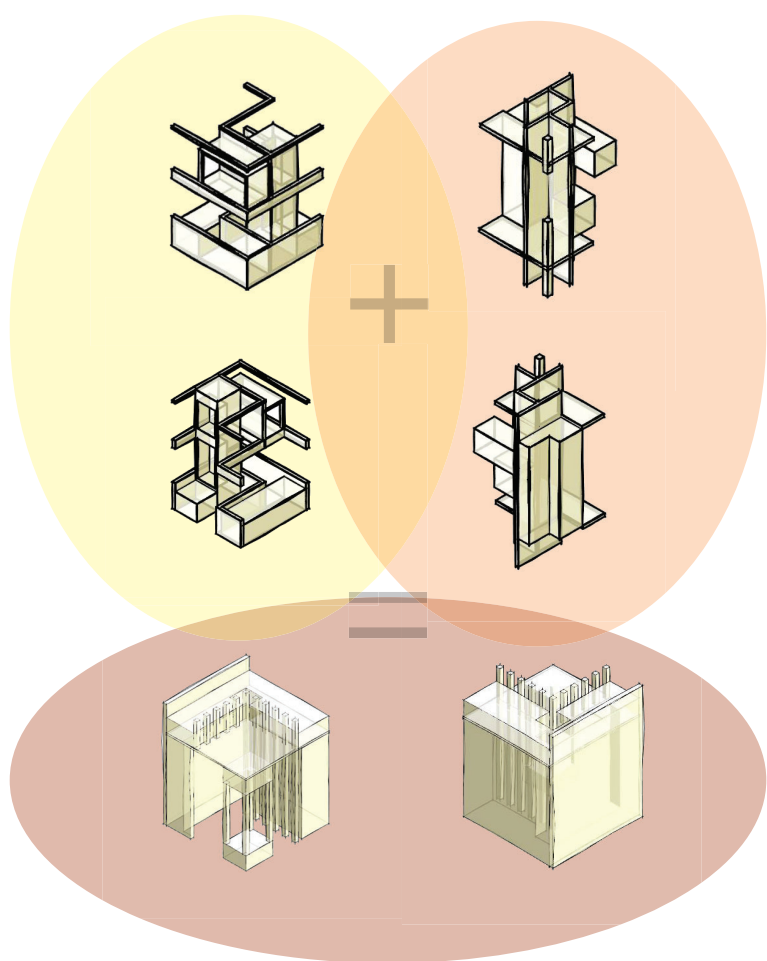


AlPod Tower, Chicago

The idea of a central core where each housing unit plugs into reminds me of the work of Archigram with Peter Cook's Plug-in City.



Exercise #3 Process Work



Professor McManus inspired me to further develop my perspective section view for Exercise #3 because she referred to it as the base plane was consuming the modules, so I ran with this bold concept of representation in my perspective and hope to convey this through my physical model.

Process: What was I thinking?

Where my brain took me that influenced the process of this project.

What are some of the best practices for representing architectural ideas?

One way to really grab the attention of the viewer with architectural drawings and renderings is to imply a sense of drama and represent the architecture as strong and imposing. These qualities make the work feel confident and successful.

James Law is one architect who's firm is centered around creating such architecture that embodies confidence through bold forms and concepts.



Brutalism is another architectural style that conveys these same notions of power and the ways in which they are viewed in photographs only aids in this feeling.



Extra Learning Opportunity

Looking to the Past to Preserve the Future
Alice Guess, School of Building Arts, Architecture Professor
Friday October 9th at 3-4pm

Unit 4: Architecture of Place

Architectural Components & Sustainable Strategies

Process: What was I thinking?
Where my brain took me that influenced the process of this project.



How can this apply to Assignment #1?

Making architecture habitable for the time and climate not only provides sustainable solutions but architecturally it contributes to the overall presence of the structure. The same type of thinking will influence Assignment #1 in how we design for the user to best meet the needs of a botanical illustrator but also create an architectural structure that works aesthetically.

When looking at Savannah architecture in particular, there is a lot of connection between the interior and exterior which is a component of Assignment #1 where the program requires a private outdoor space. Finding a way to have this space have a good connection to both the interior and exterior can help create a project that is both aesthetic and functional.

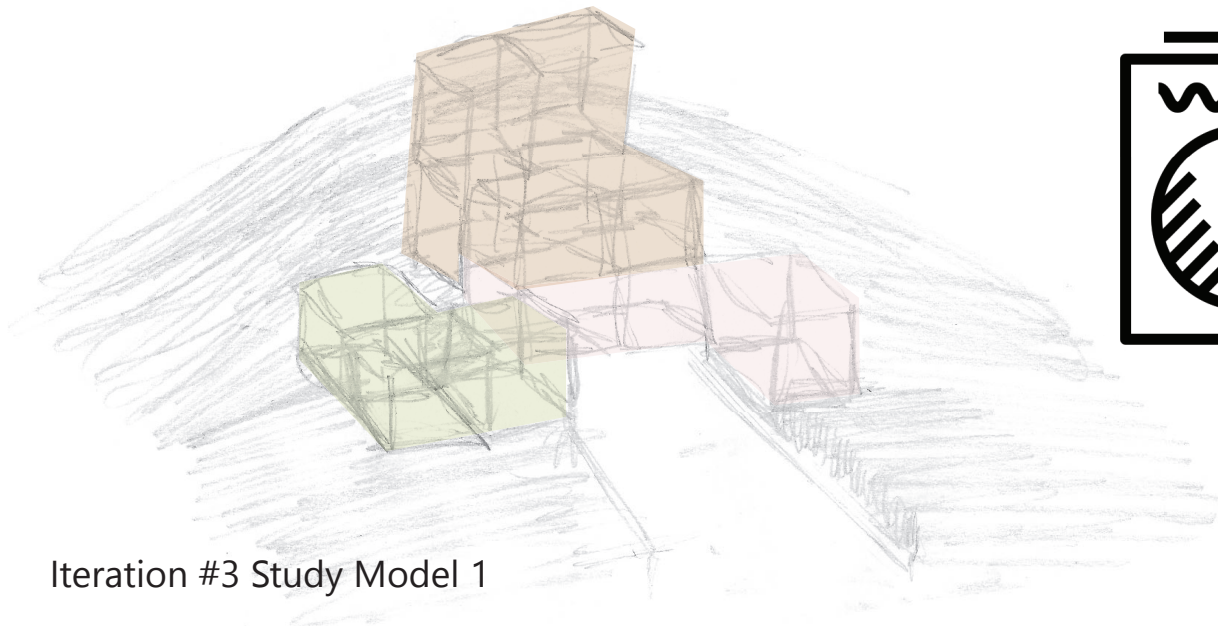
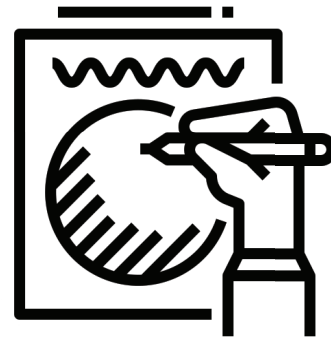
The vegetation and strategically locating trees I think will be used in Assignment #2 and how to situate the building on a site can increase the overall usability of the space when thinking of sun permeation into the space and the air quality: heat and ventilation.



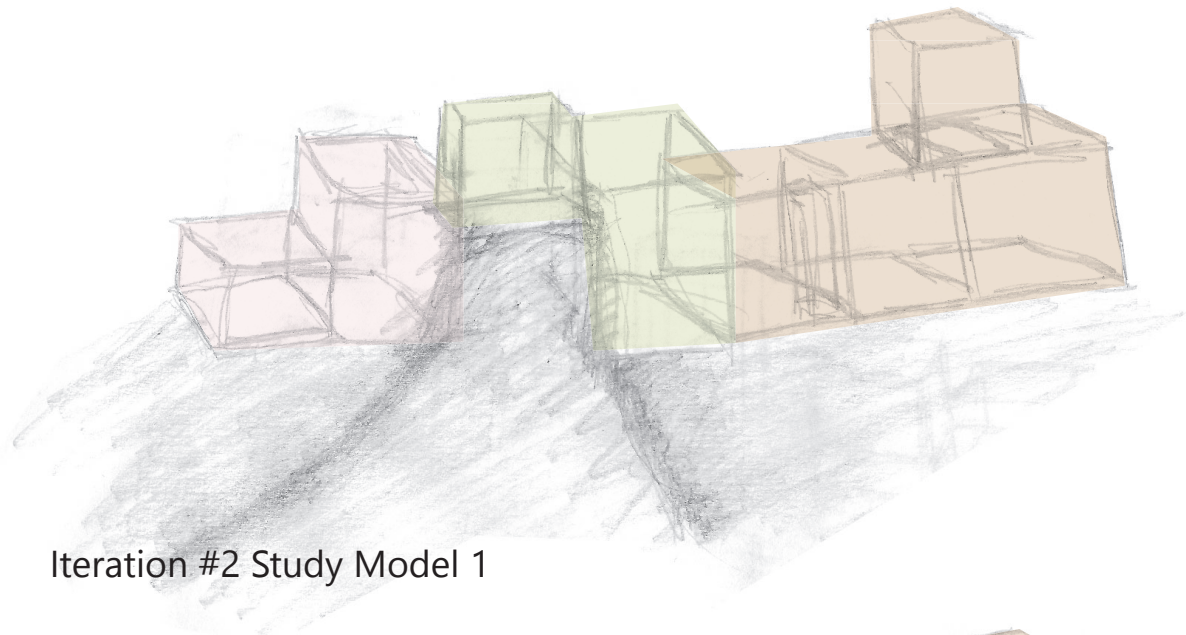
- Ventilation by lattice brickwork
- Crawlspace for air circulation
- Raised masonry foundation
- Shaded elements below and beside the structure, south facing porch for example
- Deep cornice helps solve a number of problems, shading windows, keeping water away, and provides area for heat to ventilate, but also provides aesthetics
- Shutters provide privacy, air circulation, protection from inclement weather to tune to the needs of the inhabitants
- Vegetation provide shade as well as a filter for the hot air to provide a breeze
- Water drainage systems through pipes and stone paving sidewalks, permeable paving
- Adapt each facade to its orientation



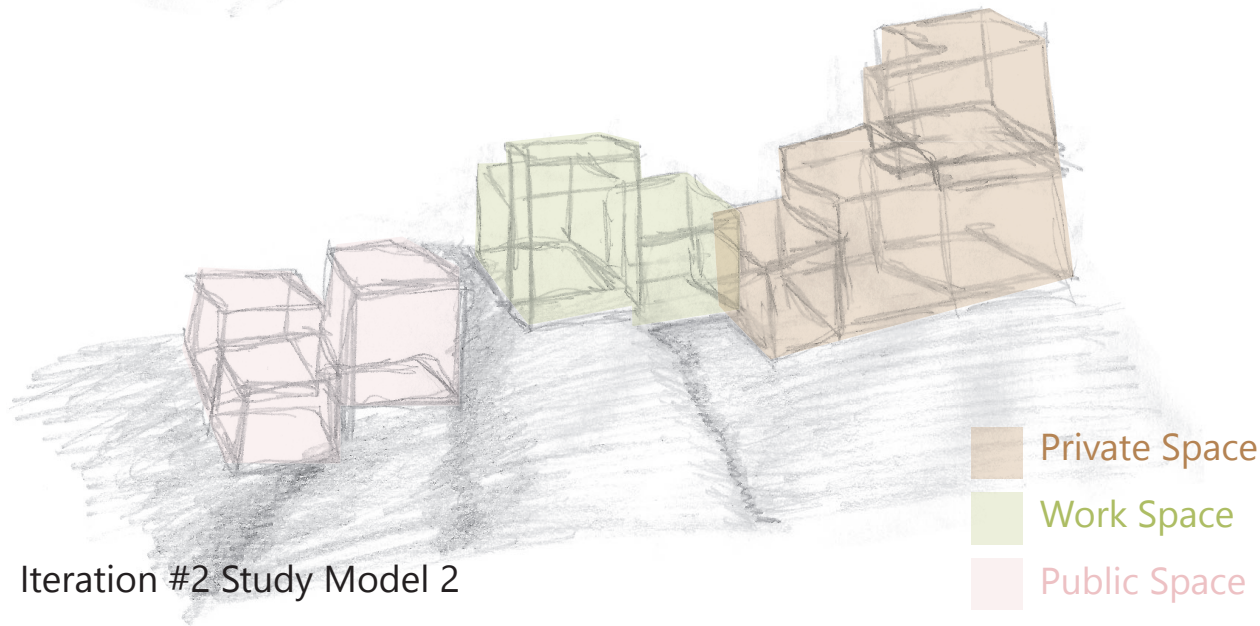
Unit 5: Process Work A1



Iteration #3 Study Model 1



Iteration #2 Study Model 1



Iteration #2 Study Model 2

Atmospheric Adjectives to Influence A1 Vignettes

Private Space

- Peaceful
- Blissful
- Heart-Warming
- Prosperous
- Graceful
- Sincere
- Warmth
- Harmonious
- Honest
- Sanctified
- Reflective

Work Space

- Lively
- Motivated
- Stimulated
- Artistic
- Healthy
- Inspired
- Focused
- Disciplined
- Independent
- Perceptive

Public Space

- Open
- Playful
- Inviting
- Curious
- Fantastic
- Abundant
- Fragrant
- Friendly

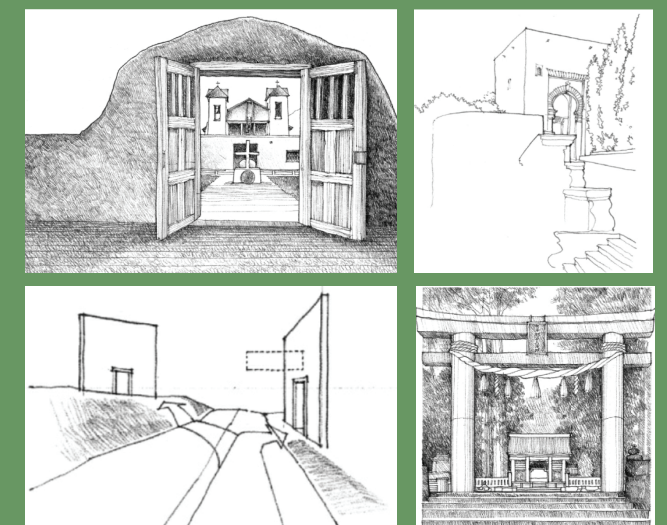
Process: What was I thinking?

Where my brain took me that influenced the process of this project.



Model Sketches, Adjacencies, & Descriptive Adjectives for Assignment #1

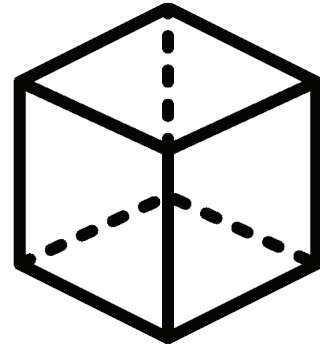
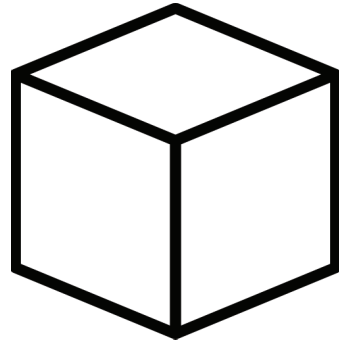
For this sketchbook page I have included just some process for Assignment #1. The sketches are my visualization of my study models to prepare me for the physical construction and the adjectives are those that will influence my vignettes. I have also included a few drawings from the Ching textbook to help me better understand the process of vignettes that we had discussed in class.



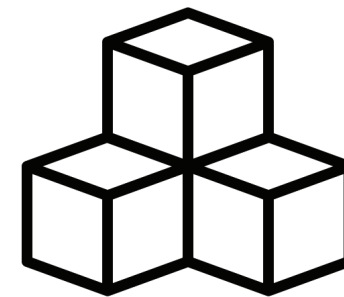
Form

Space

Unit 6: Precedent Studies



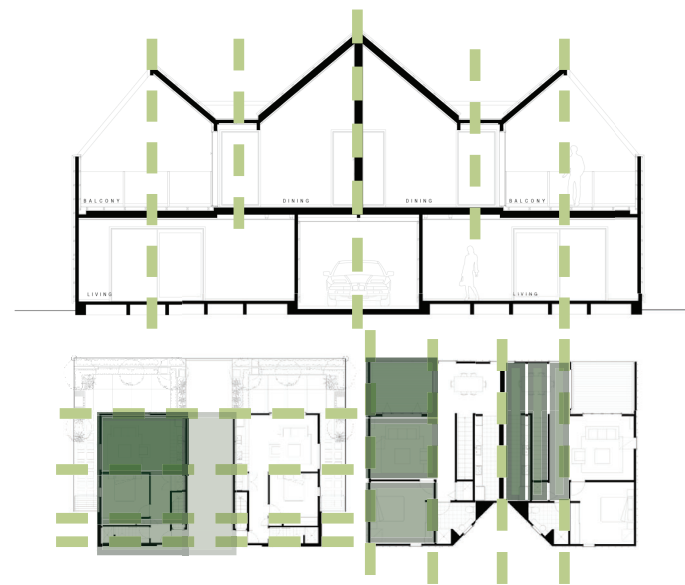
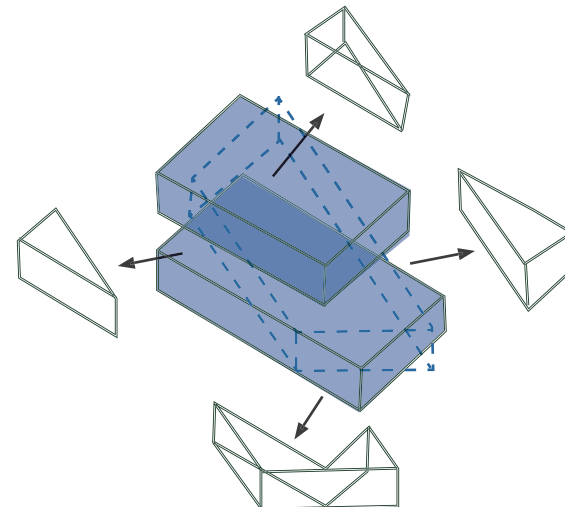
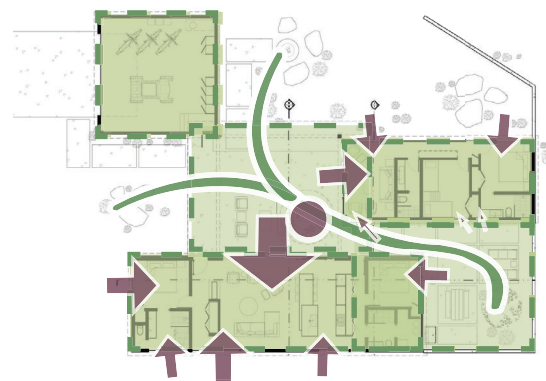
Order



Process: What was I thinking?

Where my brain took me that influenced the process of this project.

For this sketchbook page I have included some of the diagrams that I created for A2 Part 1. They focus on three aspects of design of Form, Space, and Order to better understand the concepts as they relate to my A2 project progression. All three case studies found are residential spaces that are within 4000 Sq. Ft. in order to also help better understand the scale needed to fit with my program for A1. While the studies chosen all represent just residential space, aspects of their design also will help me in influencing my public component.



Form:

Boar Shoat House in Bear Lake, Idaho



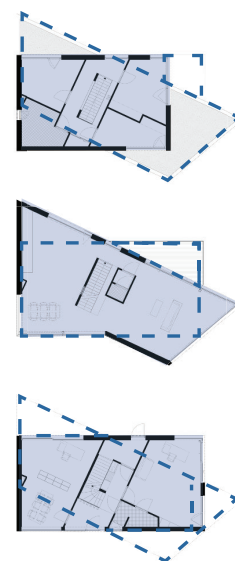
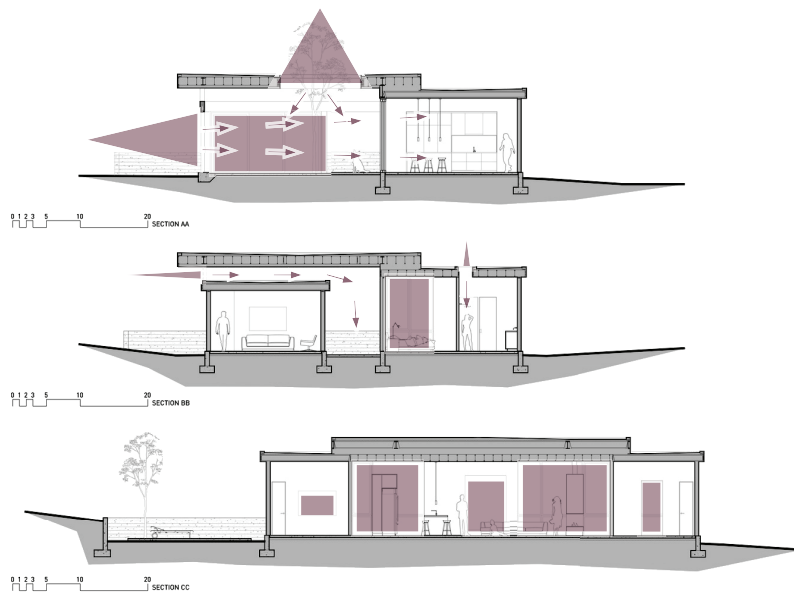
Space:

House MG in Schiedam, Netherlands



Order:

Hereford Flats in Christchurch, New Zealand

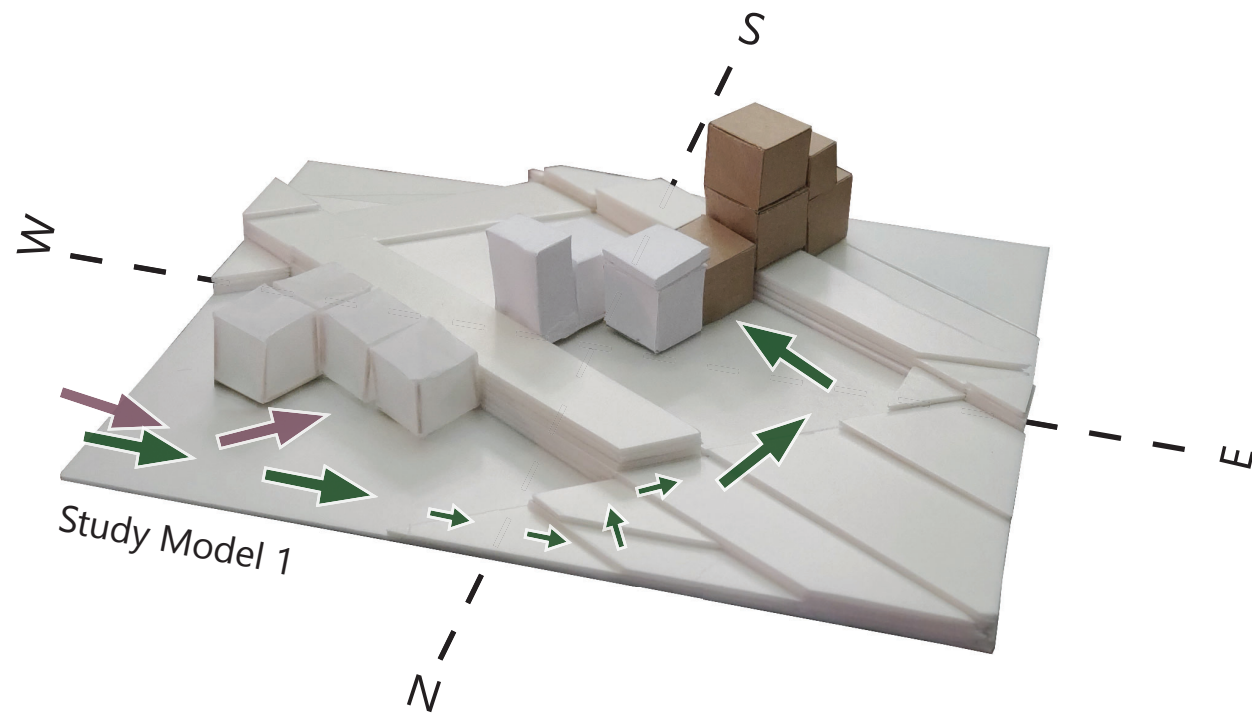


Legend

- General Massing
- Invitation of Light
- Indoor/Outdoor
- Positive Space/Form
- Implied Space
- Spatial Proportions
- Order
- Negative Space

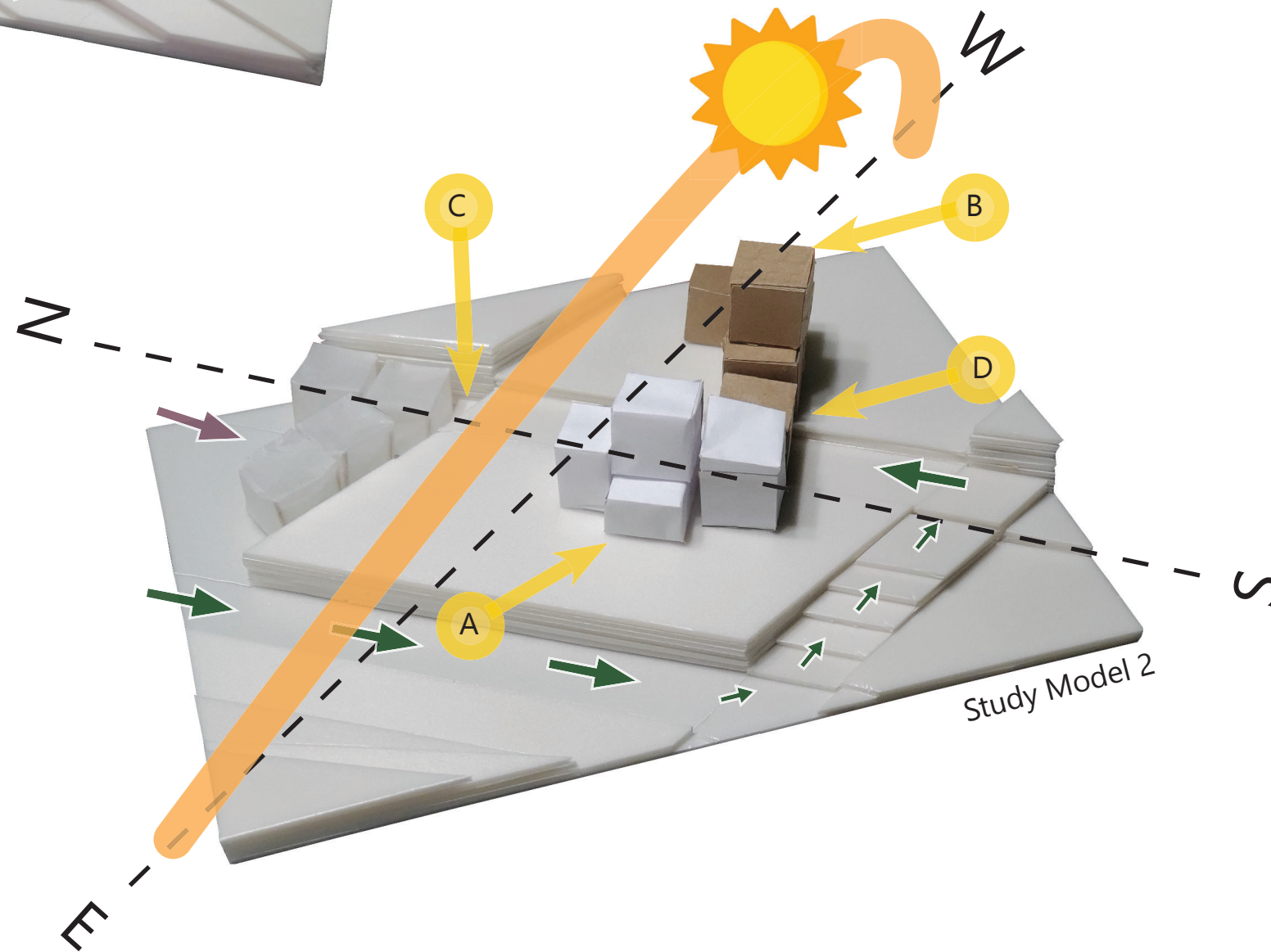


Unit 7: Topography



- A** Workspace will receive morning light
- B** Private, bedroom and living area will receive evening light
- C** Area where Southern light can permeate into public spaces
- D** Main linear façade of private spaces will receive maximum Southern exposure

- Public Circulation
- User Circulation



*This model is the one I will explore further for Assignment #2.3. Further Manipulation of the spaces back away from general massing will be done through inspiration from the case studies and botanical illustration.

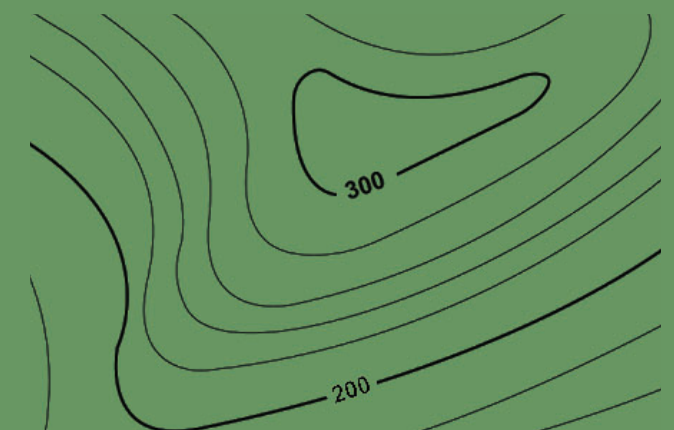
Process: What was I thinking?

Where my brain took me that influenced the process of this project.

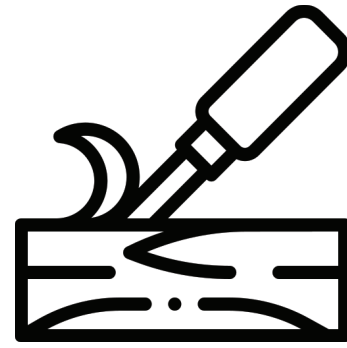


Topography and Orientation of Model on Site for Assignment #2

This week for Assignment #2 a base plan for a site was given with pre-set cut lines. From this base plane I added pieces foot by foot to create a model topography for the Live/Lab assignment. When modeling my first site I focused on the primary user and how they would circulate the site to get to their living space, their working space, and additionally how the circulation to the gallery and public space differed. This was a common theme I had started to develop in my iteration for A1 and I think it is a crucial aspect in order to have a truly private living space. In the second site, I also considered ways of incorporating air and light circulation inspired by my case studies..



Model Development

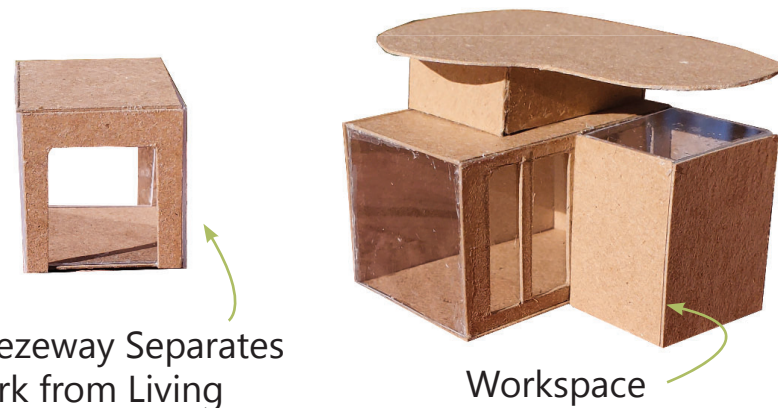


Unit 8: Application in Design

Public Space



Illustration Workshop



Breezeway Separates Work from Living

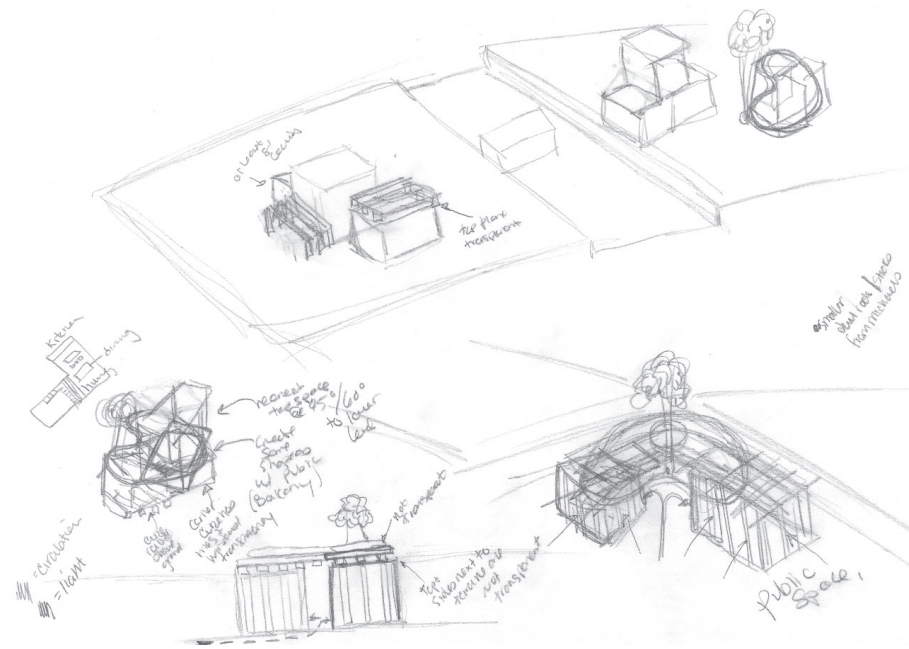
Workspace



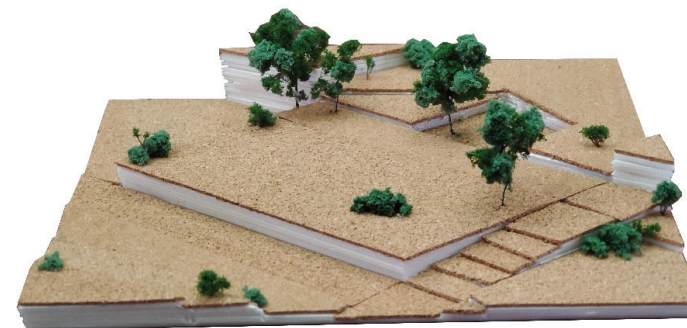
Bedroom/Closet and Private Outdoor Space

Living/Kitchen/Dining Space

Sketches



Model Refinement



More site manipulation. Adding some landscaping elements to complete the design and add to the atmosphere.

Process: What was I thinking?

Where my brain took me that influenced the process of this project.



Working with Assignment 2.3 to apply the design concepts discovered through precedent studies and through botanical illustration

This week for Assignment #2 I focused on refining my design with the inspiration I took from both the botanical illustration and the precedent studies I found.



Extra Learning Opportunity

Documenting Your Site: Photography for the Preservation Designer
Sabrinna Cox School of Building Arts Professor
Saturday November 7th at 3-4pm



Collecting Data

Compiling Data

Sharing Data



Unit 9: Site Discovery Process

Site/Building Documentation Strategies

- There are traditional methods of documentation like hand measuring but this will have limitations in terms of accuracy.
- Laser Scanning is the preferred method which stems from photogrammetry to create a 3D model.
- Time of flight scanners use lasers to collect data and create a 3D model. This is a very accurate method to save time, but it does have limitations on the types of materials it can pick up accurately.
- Drones are used when buildings are too tall to document from on ground methods.
- Time is very important as well as different skills. There may be people with specialized skills that might not be used on traditional projects that need to be considered.
- Scanning on a cloudy day often gives better results because the shadows highlight architectural details.



Traditional Tools



Modern Tools

Process: What was I thinking?

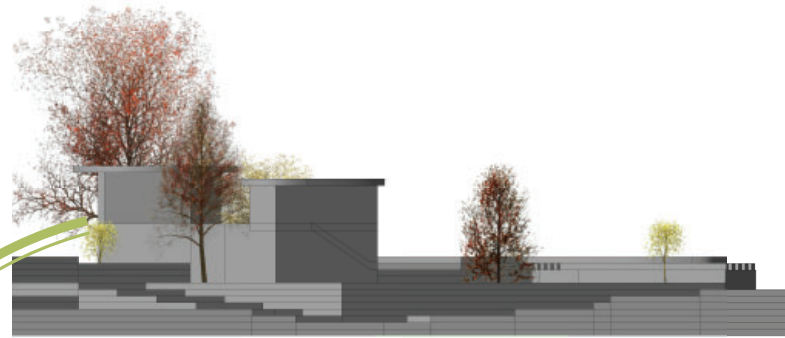
Where my brain took me that influenced the process of this project.

This extra learning opportunity was really interesting because I think this is a tool that designers and architects can use to document sites. The same programs designers use, CAD and BIM, have the capabilities to render a 3D model from the techniques, making them directly applicable to our scope of work. These documentation techniques also allow us to see where parts of a site or buildings are deteriorating and need repairs. Uniquely this also applies to the world of video game design and virtual/augmented reality, all paralleling our field.

Additionally, I loved learning about Cyark because when we learn about the history of architecture or other art forms and cultures it is disappointing to see these sites get destroyed, by humans or natural events and this company helps to preserve that history. Also this technology can go to places that might be too dangerous for humans to document and collect the data which makes it easier for us to understand our history and culture.

This is something I think should be a class for all building arts students not just geared towards preservation design students because it is something useful to add to your experience as a designer and is something that could become standard for future renovation projects. This also provides a better understanding of a site to which a better design solution can be devised which is a process that I have been working with under Assignment 2.3 where I have continued to work with the site to better my design.

Elevations



Unit 10: Last Steps Process

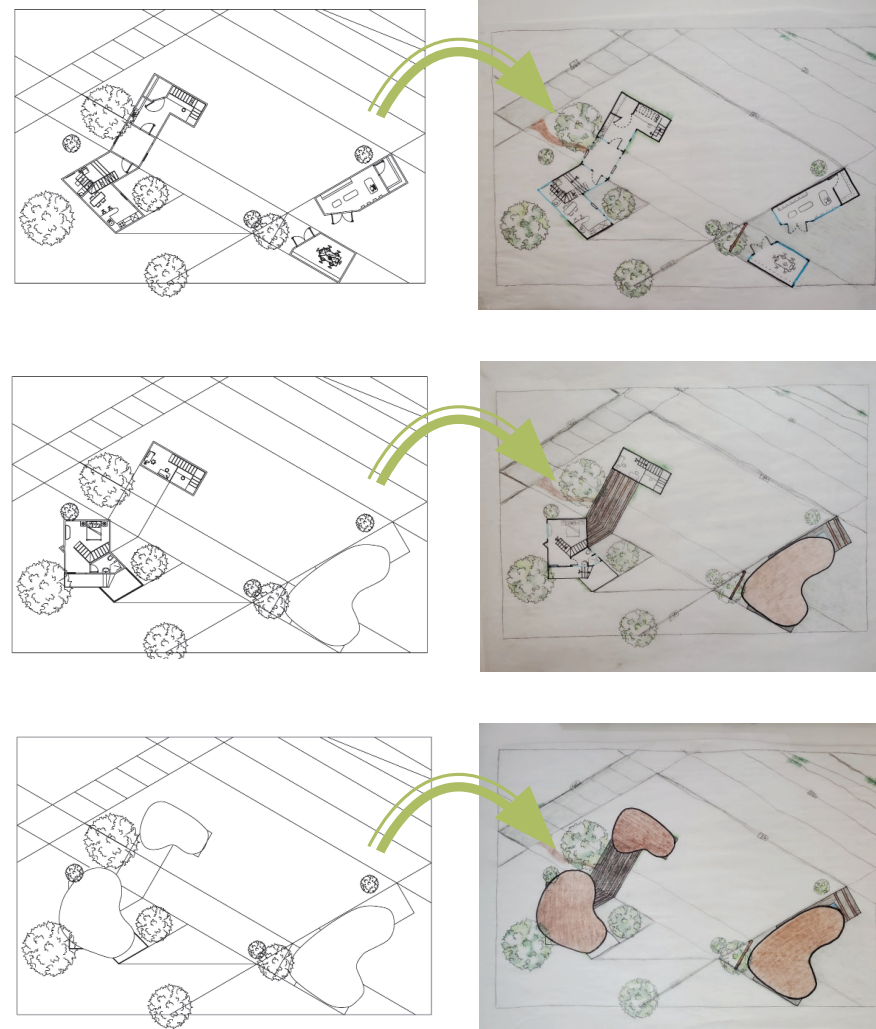


Process: What was I thinking?

Where my brain took me that influenced the process of this project.



Floor Plans



For this last week wrapping up the semester I wanted to focus on how I can represent my work with hand-drawn and hand built elements as an homage to botanical illustration. My entire project concept revolves around my understanding of botanical illustration being a blend of the scientific and beauty; the precise and the organic. Without completely omitting the orthogonal elements I chose to rotate forms and create an organic roof structure to show that as you work your way up from the ground you get more organic. This page features some of my process that I took from creating a simple digital model that I then printed and drew over. Additionally I took some hand drawn images and digitally overlay them on my elevations as I was finding my drawing alone was not scanning correctly to pick up the colors and detail.



Extra Learning Opportunity 1



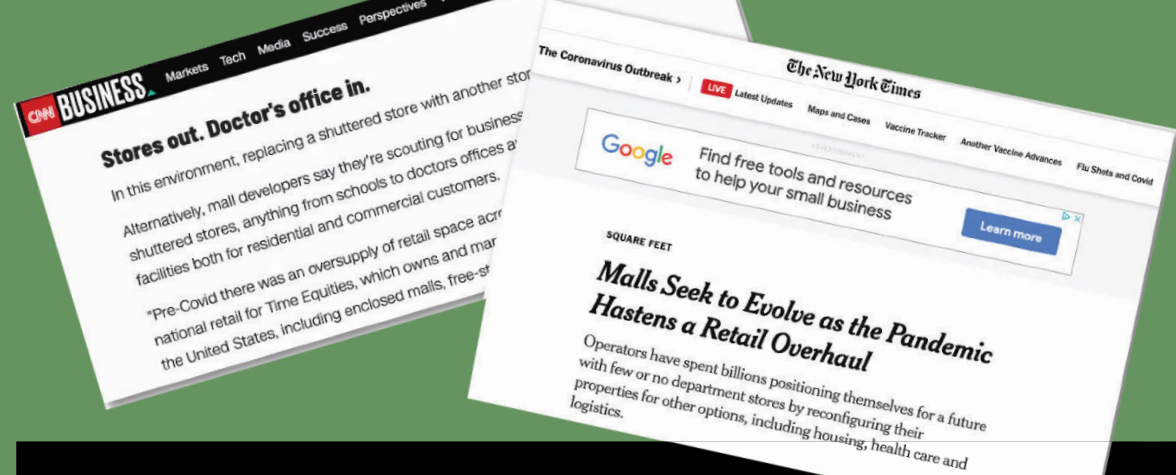
Above: Historic De Soto Hotel, Savannah GA Image from 1900.
Below: Historic De Soto Hotel, Savannah GA Image from 1908.
Background: James Oglethorpe's Urban Layout of Savannah Grid.

Learning from Savannah: Elastic Urbanism
Presented by: Robin Williams, chair of architectural history
Date: Saturday September 19th: 9am-10am

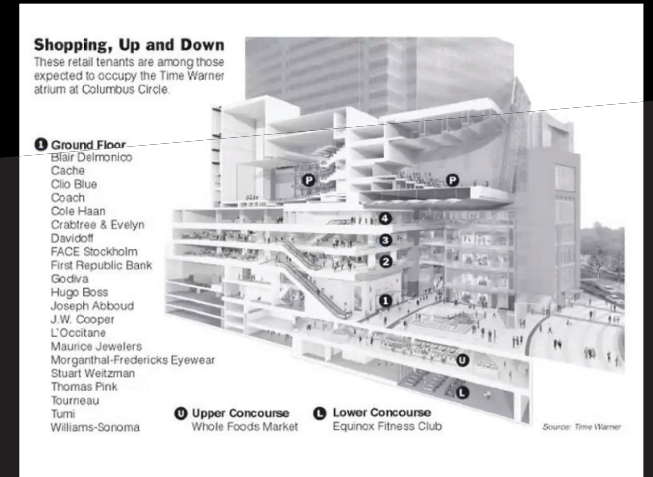
I really enjoyed the format of this workshop where we followed Professor Williams walking through downtown Savannah. It was a very fun and engaging way to learn a brief history about the urban plan of Savannah and how it has continued to evolve over time. The approach to this concept was also very intriguing in that I learned about the flexibility and adaptability that the city has in terms of urban form, or this "elasticity" as the Professor was referring to. To think of Savannah as adaptable in this way was new to me because when I typically think of a very orthogonal and planned urban form I don't think of that being elastic, instead it appears rigid and fixed. Whether Oglethorpe has intended it or not, the city grid of Savannah in which he defined has had many alterations since its conception. This type of urban layout may be one of the most successful if we are describing the success of a city based on its ability to constantly meet the shifting needs of its inhabitants.

I especially liked the walking tour in explaining this concept because I was able to see some of the different architectural aspects that still exist today where the city was changed to meet the new needs of society. For example, the original curb where many of the roads boundaries had been defined, but later narrowed because of budget and costs associated with paving. The Professor also pointed out many of the houses and tithing lots that had adapted over time and grew to the height and size they are today. Additionally he discussed how the concept of the squares had evolved as when vehicle traffic became a main mode of transportation the city incorporated the roads around the lots to become one-way to accommodate traffic as well as a sense of origin that it all began with the squares and so we shall revolve around them. Among one of the more disappointing things to happen to Savannah because it's adaptability in terms of an historic perspective is the removal of older buildings to accommodate new needs such as parking garages or the old DeSoto Hotel.

Overall, I was very pleased with this extra learning opportunity in that the Professor took advantage of the online learning atmosphere to create a live walking tour rather than just presenting slides like a lecture. I hope many more of these extra learning opportunities continue to stretch and mold to the new online learning customs much like the city of Savannah's Elastic Urbanism has adapted to the changing needs and ideals of its residents.



Extra Learning Opportunity 2



Above Left: Section of Time Warner Atrium Mall in New York City from 2005
 Above Right: Plan of Oglethorpe Mall in Savannah GA Today
 Below: Interior of the Oglethorpe Mall in Savannah GA Renovations from 1990.

Before Ink Hits Paper
 Presented by: CT Nguyen, chair of preservation design
 Date: Friday September 25th: 11am-12pm

This extra learning opportunity was different from other SBALU's and supplemental presentations I have previously attended. It was nice to take a look at some case studies of malls in America and just how much they have evolved over the last decade or so. Not just considering the COVID-19 pandemic's affect, but also in general the idea of the mall as a community hub where people go to socialize and enjoyment has since been declining. Professor Nguyen discussed the traditional programming of malls that made them a success. Typically, two big box stores flanked either side of smaller retail spaces. This concept was designed that the big box stores attracted the customer base and the consumer would continue to shop as they traveled from one to the other. The Professor also showed us one of his most recent mall projects in New York that took this concept and inverted it into a vertical space.

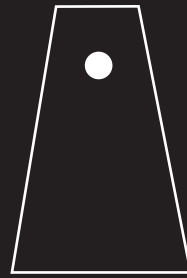
The second portion of the lecture was a discussion of what are some opportunities to reinvigorate these large pieces of unused real-estate. Many uses can encourage that same community gathering and third-place theory as they once did, but just with a slightly different programmatic use. Typically, malls have high ceilings and relatively little structure like columns interrupting usable floor space so medical centers or doctors' offices could be a typology that could be introduced into these spaces as we adjust to life after the pandemic. I know the retail space has undergone some major losses, but I am not sure that we won't come full circle with in-person retail shopping after the pandemic has subsided. Because of this pandemic many people have started to really yearn for socialization and shopping is an activity that once fulfilled this need. Either way there is no doubt that retail spaces like in malls will undergo major changes...they already have.

The lecture ended with an interactive activity where we all rated images to what we identified with the most. This is a process that is great for working with clients when first beginning project to make sure that we understand everyone's personal preferences or how they define different stylistic terms, because one person's idea of modern is completely different from another's. This was a good skill to learn because it is something that can be applied to all teamwork and group projects to get to know each other and how to narrow and combine design ideas.

Extra Learning Opportunity 3



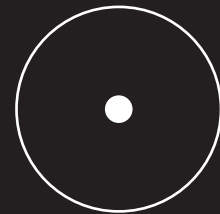
Efficiency



Geometric Expression



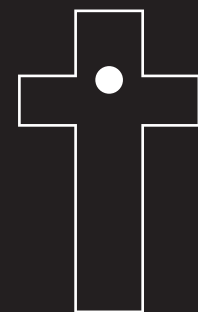
Equity



Orientation



Hierarchy



Footprint

Meaning and the Built Environment
Presented by: Walter Woods: School of Building Arts and Digital Media
Date: Friday October 2nd: 3pm-4pm

As informal as this is I cannot help myself from saying that this lecture was AWESOME! It was so nice to see the interrelationship between the two disciplines of game design and architecture. Professor Woods transitioned from a career in architecture to game design and he described how the work and education he received in the architectural field makes his work more meaningful in his games. Through the study of architectural history and learning the reasoning behind why architecture through history is created he could better create virtual architecture in video game worlds to better reflect the same basic principles and make them feel more realistic and personal. He specifically looked at the Cathedral Basilica of St. John the Baptist in Savannah and he diagrammed the different components found in traditional religious, Catholic, churches and explained how and why they were important to representing that religion in their architecture. In terms of game design how the built environment is created directly translates into the narrative the game intends to take. By thinking of architecture as it communicates a narrative mirrors that of how architects and designers in the built environment base their architectural decisions on the user of the space or the community which ideals it represents. Additionally, he touches upon four different aspects of architecture and how they shape the final product in both game design and the building arts. He described footprint, orientation, structure, and ornament as the four main principles followed to create meaningful architecture and that these same principles inform decisions for the built environment in video games.

I truly enjoyed this presentation, mostly because it looked at architecture as it relates to the virtual world and by reiterating these same concepts of architecture and how they also apply in other disciplines made me appreciate them more for the work I perform as an interior design student. The way in which this was presented by Professor Woods, also created a learning atmosphere that I think sometimes the building arts department lacks. He didn't just shove down our throats that these principles are important, and you need to follow them, he described WHY they are important in a more relaxed manner that made them feel more real and relatable. Sometimes I feel in the Interior design program we are taught the rules and regulations and codes that are required to be achieved in projects, but their actual application is not so much described. I remember an employer presentation I went to previously for a French design firm that in order for their designers to design effectively had them perform the actions as all users would in the space. Saying something should be and personally experiencing why it should be are two completely different levels of understanding. To actually experience how hard it is for the elderly to sit and stand up from a low chair by placing weights to mimic weaker joints helps us better understand that situation and we become more mindful in our designs.

Thank You!

JL